

### Abstract

A new method of preparing memantine hydrochloride, comprises the following steps: reacting 1-bromo-3,5-dimethyl adamantane and urea/formic acid with formic acid also acting as the solvent; hydrolysing with aqueous inorganic acid; alkalifying, extracting and acidifying with hydrochloric acid; finally collecting target compound. The method uses cheaper raw materials and conducts in homogeneous phase under mild conditions. It can reach high yield and good product purity, and be suitable for macrochemistry. The purity of crude product is 99.0%, and reaches 99.98% after first recrystallization, yield: 69.5%, mp: 332 C (DSC).